

Amendments to the Specification

Replace paragraph [0006] with the following:

[0006] A reverse rotation preventing mechanism for a diesel engine according to the present invention comprises: a camshaft driven by a crankshaft through power transmission means; and cams provided on the camshaft so as to drive a fuel injection pump, an intake ~~valve~~ vale and an exhaust valve, respectively. The cam for the fuel injection pump is shaped so as to include a maximum radius portion, a minimum radius portion, and a middle stage portion. The middle stage portion is radially larger than the minimum radius portion and is disposed at a predetermined angle on the back side in the rotation direction of the fuel injection pump cam from the maximum radius portion.

Replace paragraph [0011] with the following:

[0011] In a reverse rotation preventing mechanism for a diesel engine according to the present invention, cams for driving a fuel injection pump, an intake ~~valve~~ vale and an exhaust valve are provided on a camshaft driven by a crankshaft through power transmission means, the cam for the fuel injection pump is shaped so as to include a maximum radius portion, a minimum radius portion, and a middle stage portion, and the middle stage portion is radially larger than the minimum radius portion and is disposed at a predetermined angle on the back side in the rotation direction of the fuel injection pump cam from the maximum radius portion. Due to the middle stage portion, even if the rotation of the crankshaft is reversed, the fuel injection amount into the cylinder is small so as not to cause ignition, thereby preventing further continuation of the reverse rotation.

Replace paragraph [0028] with the following:

[0028] Variation of fuel injection pump cam 14 along the rotation direction will be described. When plunger 43 of fuel injection pump 12 is placed at the maximum extension stroke (uncompressing position), roller 42 is disposed so as to contact a base circle 50 represented as the minimum radius portion of fuel injection pump cam 14. Fuel injection pump cam 14 is formed with a portion in a range of a predetermined angle R1 disposed on base circle 50, which is referred to as a minimum radius portion 51. The range of angle R1 corresponds to the period ~~since~~ from when the opening process of intake valve 31 is completed (intake valve 31 is completely opened) ~~and~~ until the opening process of plunger 43 starts, as shown in Fig. 6.

Replace paragraph [0029] with the following:

[0029] The radius of fuel injection pump cam 14 at a slant portion 61 becomes larger and larger than base circle 50. After passing slant portion 61, fuel injection pump cam 14 is formed with a maximum radius portion 52 projecting radially outward in a range of a predetermined angle R2. Maximum radius portion ~~portion~~ 52 corresponds to the maximum contraction stroke (compressing position) of plunger 43.

Replace paragraph [0030] with the following:

[0030] The radius of fuel injection pump cam 14 at a slant portion 62 is gradually reduced. After passing slant portion 62, fuel injection pump cam 14 is formed with a middle stage portion 53, which is radially larger than minimum radius portion 51, in a range of predetermined angle R3 on the back side in the rotation direction of fuel

injection pump cam 14 from maximum radius portion 52. Referring to Fig. 6, angle R3 is determined so that the boundary position of middle stage portion 53 against the portion where the radius is gradually reduced from maximum radius portion 52 is located adjacent to a position for starting the opening process of exhaust valve 32, and that the boundary position of middle stage portion 53 against the portion where the radius is changed with passing to middle stage portion 51 corresponds to a position for almost closing exhaust valve 32. In other words, the range of predetermined angle R3 is set so as to substantially correspond to the period ~~since~~ from when the opening process of exhaust valve 32 starts ~~til~~ until the closing process of exhaust valve 32 is almost completed.

Replace paragraph [0037] with the following:

[0037] In this regard, as shown in Fig. 4, plunger 43 is peripherally formed at a top portion thereof (on the opposite side to tappet 41) with a lead (spiral notch) 43a opened into plunger barrel 45. Plunger 43 is rotated by rotating control lever 16. Fuel is sucked from a suction port 44 into plunger barrel 45 through lead 43a. At the engine starting, when a rotary speed setting lever is rotated to rotate control lever 16, plunger 43 is rotated so as to adjust the position of lead 43a, thereby setting the fuel suction quantity. Since this state, plunger 43 slides in the contraction direction, so as to compress and deliver fuel. When the slide of plunger 43 reaches a certain degree, suction port 44 is opened to lead 43a so as to complete the fuel injection. This plunger position for completing the fuel injection is referred to as an engine-starting injection completing lift L1. The height of middle stage portion 53 is designed to substantially correspond to

engine-starting injection completing lift L1. Angle range R3 of middle stage portion 53 is determined to substantially correspond to a range of a profile 66 of exhaust cam 22 ~~intake cam 21 (sic)~~ for the opening period of exhaust valve 32 ~~intake valve 31 (sic)~~ since from its opening ~~till~~ until its closing.

Replace paragraph [0038] with the following:

[0038] Referring to Fig. 6, a slant portion 63 where the radius is reduced from middle stage portion 53 to minimum radius portion 51 substantially corresponds to a second lowering lift period 73 due to a profile 65 of intake cam 21 ~~since~~ from when intake valve 31 starts to be opened ~~till~~ until intake valve 31 is fully opened. More specifically, referring to Fig. 6, a lift L2 is designed to establish a position of plunger 43 sliding in the contraction direction for starting compression of fuel for engine starting so as to increase the pressure of fuel in plunger barrel 45 and to open delivery valve 48 interposed between plunger barrel 45 and high-pressure pipe 47. The lift difference between lift L2 and L1 corresponds to the fuel injection quantity for engine starting. Due to this arrangement, the injection of fuel during a later-discussed reverse rotation is reduced so as to prevent further reverse rotation.